CATHITATER HERDER

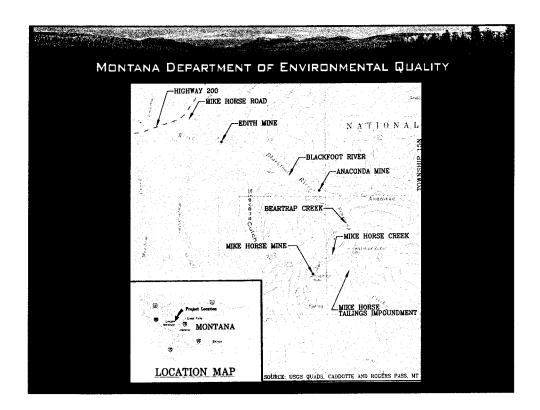
MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Upper Blackfoot Mining Complex

January 2007 David Bowers



Mr. Chairman and members of the committee, for the record my name is David Bowers. I work for the State superfund section of DEQ and I am assigned to the Upper Blackfoot Mining Complex.

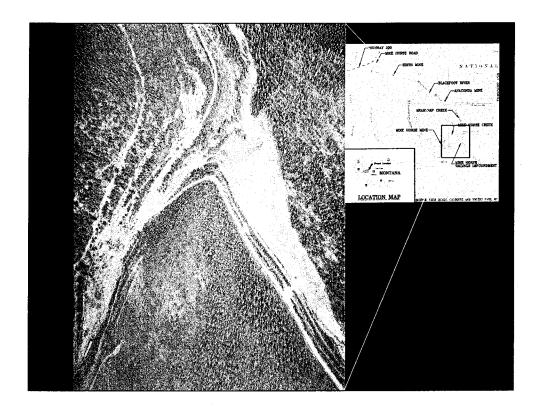


Before you is a map of the Upper Blackfoot Mining Complex also known as the UBMC and often referred to as the Mike Horse. The UBMC is located approximately 15 miles east of the town of Lincoln.

The UBMC includes the Anaconda, Carbonate, Mike Horse, and Paymaster mines.

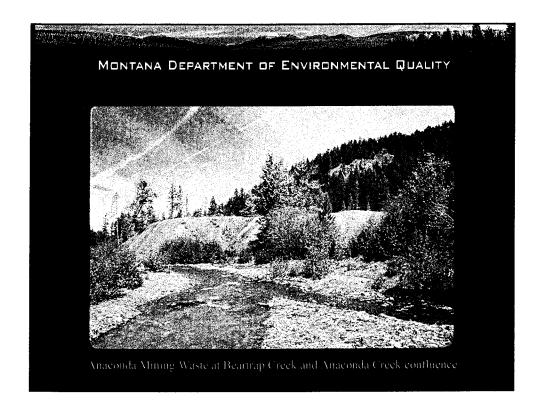
These mines were mostly silver and lead operations that had only sporadic activity from 1890s to 1960s.

Also located at the UBMC is the Mike Horse dam and tailings impoundment



This will be one of the larger features that you will see on our tour tomorrow.

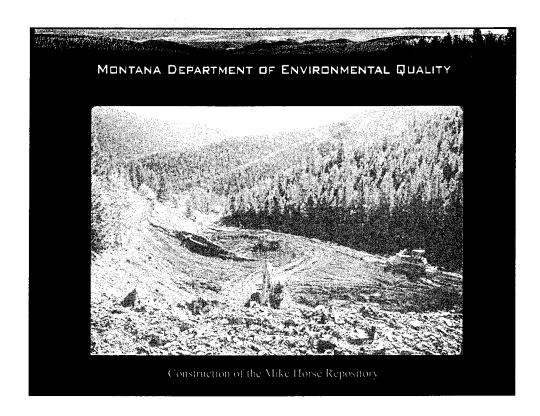
You are looking at the 1975 breach of the impoundment dam that released approximately 200,000 cubic yards of metal-bearing tailings downstream. This breach resulted in fish kills miles downstream of the dam and is attributed to ongoing fish population problems today. In addition, this breach raises human health concerns for anyone who would use the river today, including campers, swimmers, and fishermen of all ages.



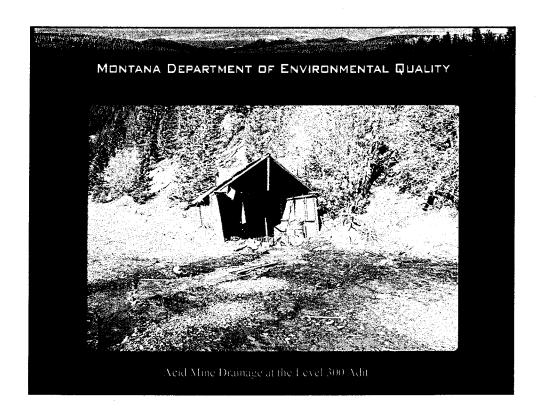
Today I would like to take you on a brief tour showing "before and after" photographs of work completed in the 1990s. You will see many of these places on your tour tomorrow.

During this period, Asarco and Arco performed a number of removal activities at the UBMC.

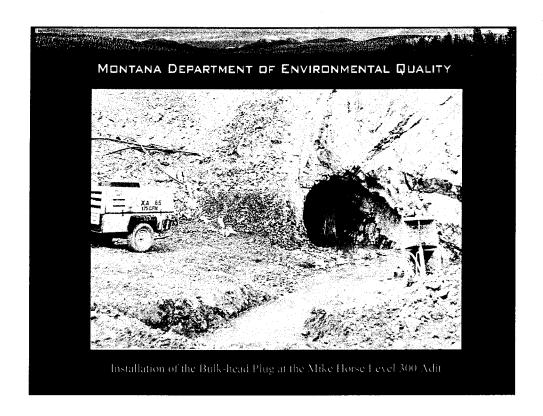
Mine waste removal was conducted with placement of the waste into one of three constructed repositories



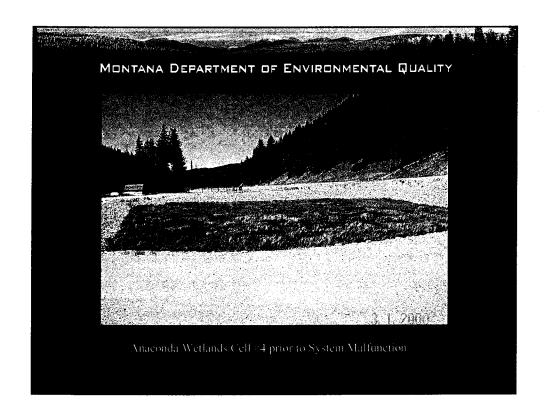
In addition to the Mike Horse repository that is pictured here, the Paymaster and Carbonate repositories were also constructed during this time period. I will be pointing these repositories out to you on tomorrow's tour.



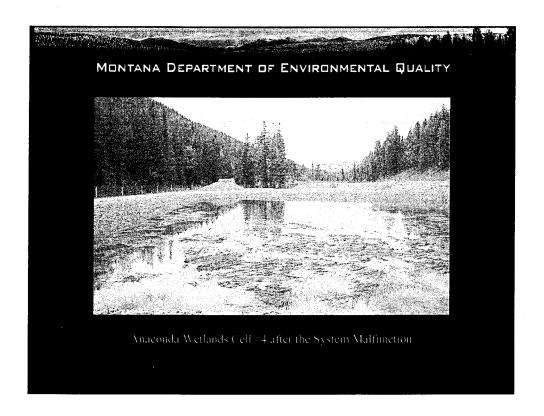
Acid mine drainage at the Mike Horse adit – pictured here – and at the Anaconda adit was also addressed.



Bulk-head plugs were installed at each of these adits to control the flow of the acid mine drainage.



The regulated flow from the Mike Horse and Anaconda adits was channeled into a constructed wetland treatment system. Note the robust color of the grasses in the cell.



This photo was taken shortly after discovering that the system had malfunctioned in the spring of 2003. This system, since its inception, has yet to meet state water quality standards. In fact, Asarco recently acknowledged as part of public record that even when Asarco was building this system, it knew that the system would never meet state water quality standards. The problems facing this treatment system are not unique at the UBMC. Yes, work has been done, but in many instances the work was inadequate and Asarco and Arco refused to address the problems. This culminated in an impasse, which led to the State filing a lawsuit in 2003 against Asarco and Arco.

Contaminants of Concern Cadmium - 2 to 30 times the state water quality limit for human health (150X aquatic limit) Copper - Twice as high as the state water quality limit for human health (100X aquatic limit) Lead - Ranges from barely exceeding to 10 times the state water quality limit for human health (40X aquatic limit) Zinc - Up to 10 times the state water quality limit for human health (170X aquatic limit)

While much more investigation is needed at the UBMC, here are some of the major contaminants of concern thus far.

Cadmium concentrations are up to 30 times higher than the human health state water quality standard and over 150 times higher than the water quality standard for aquatic life.

Copper, while not as toxic to humans as aquatic life, still is twice the human health state water quality standard and over 100 times higher than the water quality standard for aquatic life.

Lead concentrations are up to 10 times the human health water quality standard and up to 40 times higher than the water quality standard for aquatic life.

Zinc concentrations are up to 10 times the human health water quality standard and up to 170 times higher than the water quality standard for aquatic life.

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Agency Involvement

Montana:

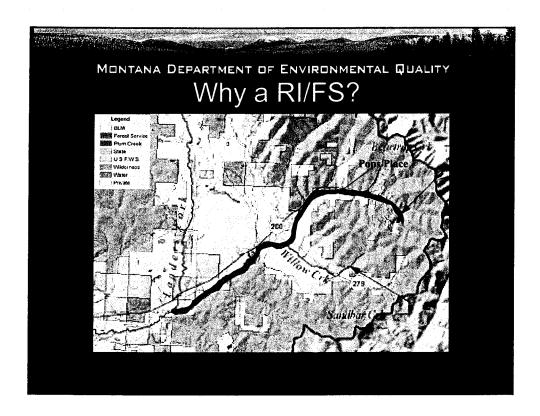
- Department of Environmental Quality (DEQ)
- Department of Natural Resources and Conservation (DNRC)
- Department of Fish, Wildlife and Parks (FWP)
- Department of Justice (DOJ)

Federal Government:

- United States Forest Service (USFS)
- United States Environmental Protection Agency (EPA)
- United States Department of Justice (DOJ)

Currently, there are many state and federal agencies involved at the UBMC. DEQ is working closely with these other agencies to ensure that efforts are not duplicated, that all available data is utilized, and that all agency concerns are addressed in a timely and efficient manner.

With this multi-agency involvement, it is important to remember that the UBMC is a high priority state superfund site and that DEQ is the only agency that has the authority to perform a site-wide Remedial Investigation.



Why perform a Remedial Investigation/Feasibility Study?

A remedial investigation will identify specific areas where there is unacceptable human health risk at the UBMC. It is critical that campers, fishermen, swimmers, and families using the headwaters area of the Blackfoot River know that they are safe as they pursue their recreational activities.

A remedial investigation will also identify specific "hot" areas where there is unacceptable ecological risk at the UBMC. These "hot" areas must be addressed if the Blackfoot River headwaters area is to function in a manner that supports fish and the surrounding wildlife.

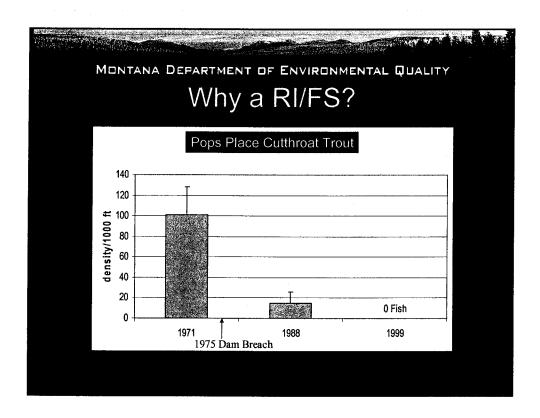
The map you are looking at shows the approximate area that the RI/FS will target. It is divided into two areas and covers at least 24 miles of impacted river.

The Blue is the approximate area where most of the efforts over the past 15 years have taken place. Please note that this area is predominately private (Asarco) property and USFS land. This is the area that was the site of the PLPs removal actions and is the area that is partially addressed by the USFS engineering evaluation/cost analysis or EE/CA. This EE/CA is a series of proposed removals that will take place in this area.

This Blue area contains numerous data gaps related to human health risks and the environment risk that will be investigated during the remedial investigation.

The Red is the approximate area of very limited investigation, but of having known impacts from the 1975 breach of the Mike Horse dam. Please note that in this red area, approximately 19 river miles long, the Blackfoot River flows through predominately private (non-Asarco) property. This area, which ends at Landers Fork approximately 5 miles east of Lincoln, has metals contamination (predominately Cd, Cu, Pb, and Zn) in Blackfoot River floodplain sediments. This sediment contamination has a very strong correlation to the FWP fish surveys conducted in this area.

Before I move to the next slide, I want you to focus on the area known as Pops Place.



Pops Place is one of several reaches of the Blackfoot River that is routinely surveyed for fish populations. The graph you are looking at is for cutthroat trout – listed by the state as a species of special concern. The FWP survey shows cutthroat populations before the breach (1971) and after the breach of the Mike Horse dam. As stated before, the FWP fish surveys seem to have a strong correlation with the known floodplain sediment contamination in this area.

So, why is a remedial investigation/feasibility study necessary?

The remedial investigation will pinpoint the nature, magnitude, and extent of the contamination. The feasibility study will evaluate cleanup alternatives, assessing the options that will be most effective in eliminating the risk posed at the UBMC.

So, why is a remedial investigation/feasibility study necessary now?

Fourteen years ago we said we needed this.

During that time Asarco and Arco continued to resist moving forward with a remedial investigation, while their work at the UBMC ranges from inadequate to marginal.

In the mean time, the pace has quickened with regard to response at the UBMC. The USFS is moving forward with its responsibilities at the UBMC.

It is imperative to the users of the Blackfoot River headwaters that a remedial



Mr. Chairman and members of the committee, thank you very much for allowing me the time to brief you on this matter. I look forward to showing you the headwaters of the Blackfoot River tomorrow on our tour.